



MOBILE MAINTENANCE FACILITIES

Program Overview

What does the MMF Program Office do?

- ▣ Design & Build Mobile Maintenance Facilities
- ▣ Provide an overarching management construct (NAVAIRINST 13670.1C)
- ▣ Provide Life Cycle Logistics Support
 - Technical Data
 - Technical Directives
 - Parts Provisioning
 - 2nd Destination Shipping
 - Assist in End of Life Disposition
- ▣ Provide Engineering Support

Program Execution

Acquisition

- Basic Ridged Walled Shelter
 - Entering 2nd year of five year IDIQ contract w/Gichner Corporation
 - Seven shelter types
- Environmental Control Units
 - In 3rd year of IDIQ contract w/Snowbird Environmental Systems
- Expeditionary Power
 - Requirements procured through PM-MEP

Rework

- Return Mobile Facility Shells to basic “Like New” condition
- Saves the program \$15K - \$20K per shell over new shell acquisition
- Rework, preserve & store Tactical Quiet Generators

Configuration

- Engineers create spec drawings
- Artisans perform configuration work
- Configure basic shells into specific AVLOG support capability
 - Supply Support
 - I-Level Maintenance Support
 - Administrative Spaces

Program Budget Profile

APN-7 (~\$7M)

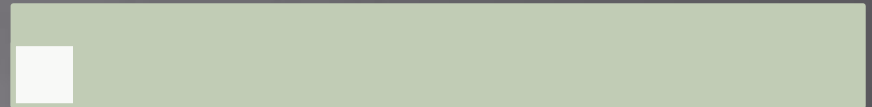


☐ New shell & ECU Procurement

☐ Initial MMF Configuration

☐ Personnel

OM&N (~3M)



☐ Rework & Reconfiguration

☐ Publication Updates

☐ 1st & 2nd Destination Shipping

Cost to Build

New MMF Shell

- Basic MF-A: \$47,809
- Basic SOMF: \$51,622
- Basic INU: \$61,680

Environmental

- \$3400 - FY15
- \$4200 - FY16
- \$5100 - FY17

Base Configuration Cost – Materials and Labor

- FY14 MDMC: \$69,922
- FY14 FRCSW: \$71,247

Average Final Cost at Time of Fleet Delivery:
\$123,294.00

MMF's forward Deployed In Support of OIF (2003-2009)



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MMF's forward Deployed In Support of OEF (2009–2014)



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Tactical Aviation Barge (TAVB) Operations USNS Curtis & Wright



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RTCASS – Backbone of MV-22, F-18 & AV-8B Avionics Support

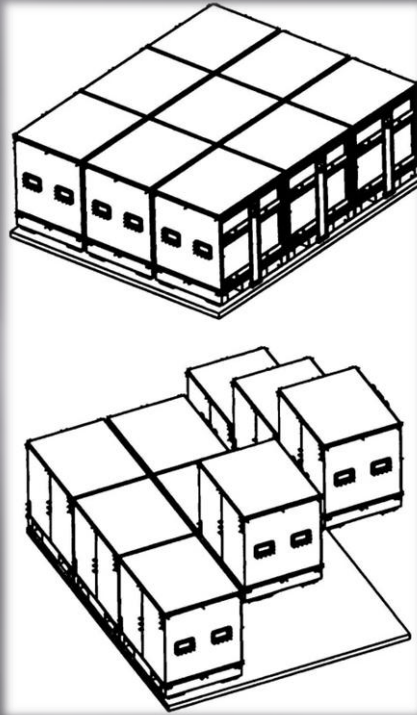


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Expeditionary Supply Support

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- Can be used as configured in Mobile Facility
- Internal Light Expeditionary Modules (LEMs) can be broken down and deployed via standard 463L palletized configuration ISO forward operating bases



Battery Maintenance: Sealed Lead Acid, NiCAD and Lithium Ion



- ❖ The Common Battery Maintenance Facility provides for servicing & storage of SLAB, NiCAD, & L-Ion aircraft batteries.
- ❖ Replaces previous specialized MF configurations with a common configuration that can be tailored to meet the customers specific battery servicing & storage requirements.
- ❖ Eye wash station, portable body drench system and self contained sink provide for battery maintenance safety requirements.

Agitated Solvents and Aqueous Parts Washing Capability

- Sink-type Aqueous Parts Washer - uses aqueous based solution for manual hand-cleaning of light to moderate dirt, grime, oil, and grease from steel components
- Used in support of Intermediate maintenance for Ground Support Equipment, Airframes, and Power Plants divisions

- Agitated Solvents Parts Washer that provides improved VOC capturing - Meets California, San Joaquin Valley Rule 4662 requirements (most stringent in U.S.A - requires 96.75 percent capture efficiency) for solvent degreasers.
- Touch screen for all operations.
- Improved cleaning efficiency – A combination of vertical actuation and horizontal solvent spray jets maximize agitation.
- Variable timed cleaning
- Closed loop continuous solvent circulation through filters and a strainer ensures a high level of solvent cleanliness and prolonged solvent life.



Mobile Facility Integration Unit (INU) Modernization & Inventory Refresh Initiative

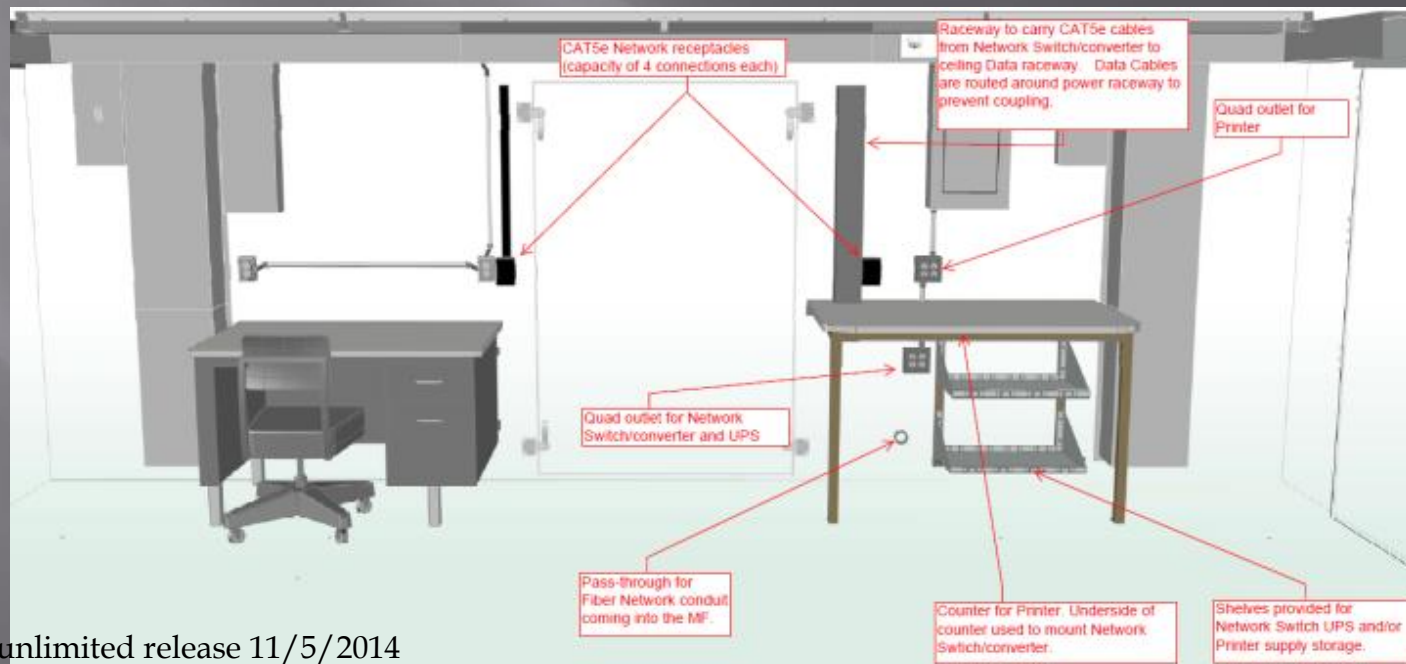
INU's are the Backbone of an MMF complex.

- ❖ Represent the largest single configuration, totaling 17% of the USMC MMF inventory (534).
- ❖ 40% of the population, (214), are over 25 years of age.

In an effort to proactively address this critical vulnerability, the MF Program has begun an INU modernization and inventory refresh initiative.

Design Improvements:

- ✓ Incorporation of CAT5e Ethernet network cabling into dedicated raceways, which provide a convenient cable management system.
- ✓ Countertop addition, which can be used in support of a printer/copier or used as a desk.
- ✓ Provisions in support of a network switch, UPS, and printer/copier supplies.
- ✓ Wall pass through to provide a means to bring CAT5e and phone lines into MMF without compromising butting kits.
- ✓ Additional power and CAT5e outlets





Mobile Facilities: Rework and Configuration

Tactical Quiet Generators: Rework and Preservation



Mobile Facility Rework & Configuration Process

Mobile Facilities offloaded, inspected & staged.



Mobile Facility Rework & Configuration Process

Specific MMF's identified for rework by serial number
Limited Technical Inspection (LTI) performed:

- ❖ Damaged assessed
- ❖ Material requirements identified
- ❖ Work hours estimated
- ❖ Cost estimate submitted



Mobile Facility Rework & Configuration Process

After LTI, shell goes to disassembly:

- ❖ Hardware removed
- ❖ Floors striped and prepped for new LonSeal floor covering if required



Mobile Facility Rework & Configuration Process

Once disassembly is complete, structural repairs begin:

- ❖ Delamination repaired
- ❖ Punctures, dents and gouges repaired
- ❖ Forklift pockets repaired
- ❖ Structural members replaced if required



Mobile Facility Rework & Configuration Process

Now disassembled and repaired, shell is prepped for paint:

- ❖ Sent to Steam & Blast - inside and out
- ❖ Hand sanded as required
- ❖ Zinc rich primer applied to all steel members
- ❖ Primer coats applied
- ❖ Interior of shell is painted



Mobile Facility Rework & Configuration Process

Final Paint:

- ❖ Sealant applied to seams and rivnuts
- ❖ Sealant is allowed to cure for 24 hours
- ❖ Final exterior paint applied



Mobile Facility Rework & Configuration Process

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Configuration begins:

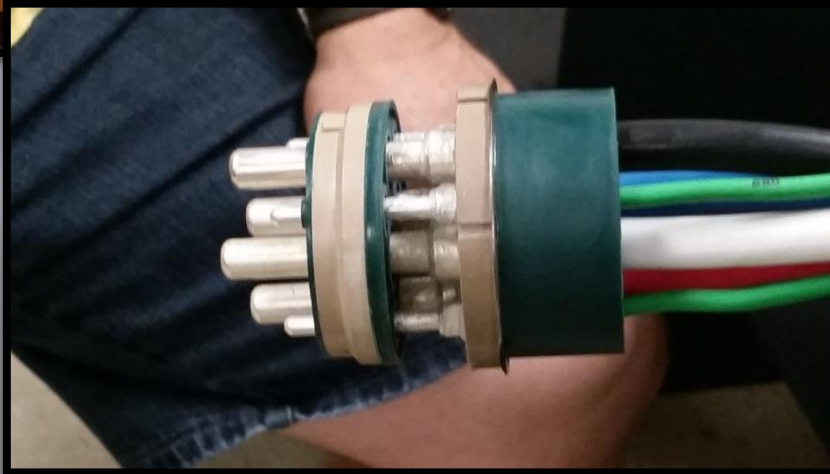
- ❖ Lights, electrical & Environmental Control Unit
- ❖ Benches, counter tops & shelves
- ❖ Specialized support equipment or test benches



Mobile Facility Rework & Configuration Process

Finishing Touches:

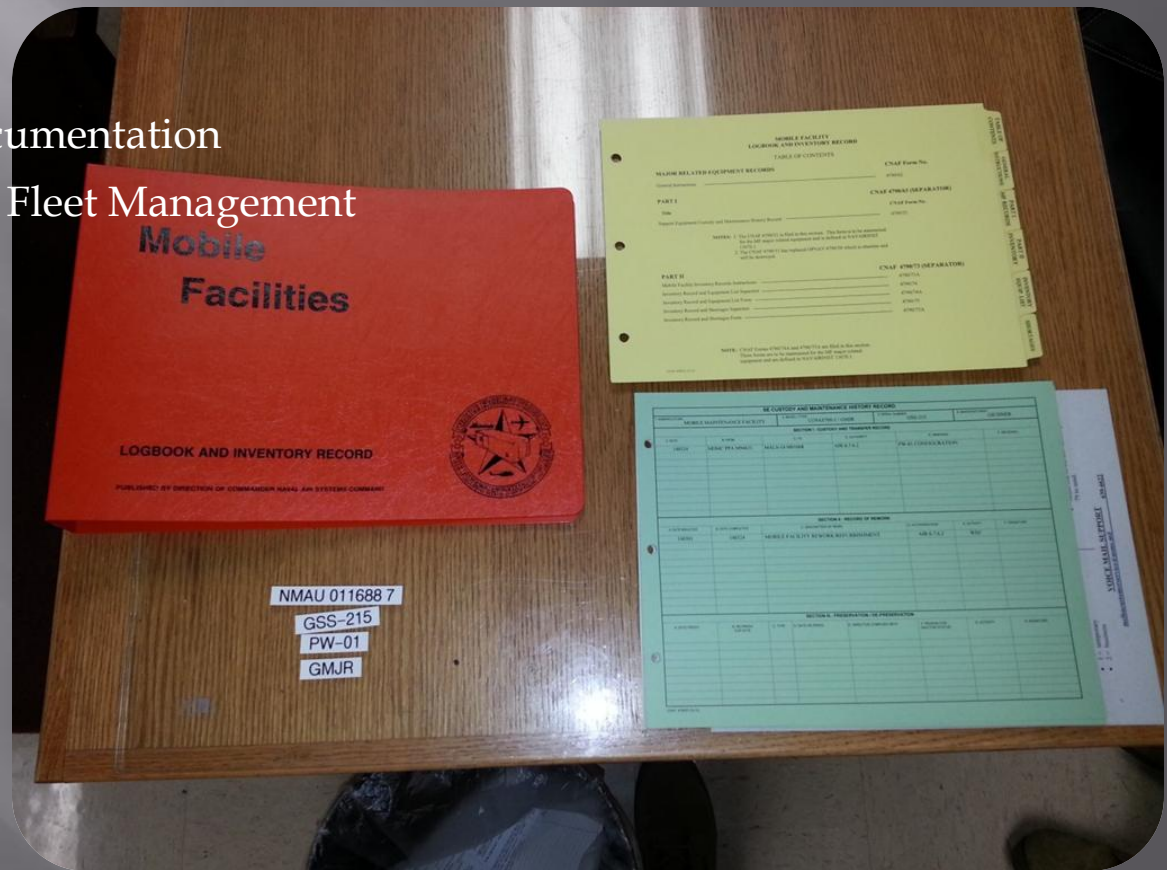
- ❖ Power Cables built and included as pack-out item



Mobile Facility Rework & Configuration Process

Finishing Touches:

- ❖ Log Book Inventory Record created
 - ✓ CSC Certification
 - ✓ Waiver documentation
 - ✓ Engineering Change Documentation
 - ✓ Forms & Instructions for Fleet Management



Mobile Facility Rework & Configuration Process

Completed Mobile Facility is Inspected by a Marine Liaison prior to Shipment:

- ❖ Electrical & mechanical fabrications are inspected for proper installation and operation
- ❖ Configuration of MF is checked against engineering drawings
- ❖ CSC compliance is verified
- ❖ All pack-out items are inventoried
- ❖ Shipping preparations are inspected to ensure no damage will occur during shipment
- ❖ MF shipped to customer activity



Tactical Quiet Generator (TQG) Rework & Care-In-Storage

TQG's are reworked in a process similar to that of Mobile Facilities

❖ Rework:

- ✓ TQG is evaluated and a cost estimate is provided to the MF Program Office
- ✓ Inducted for troubleshooting and mechanical repair
- ✓ Once mechanically sound, structural damage and corrosion is repaired and TQG is repainted
- ✓ Placed in preservation

❖ Care-In-Storage:

- ✓ Marine Depot Maintenance Command (MDMC) provides for the care-in-storage of roughly 100 TQG's, a blend of both 100 & 200 KW generators
- ✓ Every three years all TQG's are taken out of preservation, load tested and then place back in preservation



Questions?